New Realizations Of CMOS Current Controlled Conveyors With Variable Current Gain And Negative Input Resistance

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Circuits and Systems, 2003. MWSCAS '03. Proceedings of the 46th IEEE International Midwest Symposium on;Publication Date: 27-30 Dec. 2003;Vol: 1, On page(s): 43- 46 Vol. 1;ISBN: 0-7803-8294-3

Summary

In this paper two new second-generation current controlled current-conveyors (CCCIIs)-based circuits are proposed. The proposed circuits are variable gain CCCII and CCCII with negative resistance. The design of these circuits is based on a simple CMOS CCCII that has high bandwidth with -3 dB cutoff frequency of 580 MHz. With no signal mirroring used in these configurations, lower harmonic distortion can be achieved. HSPICE simulation results for the proposed circuits are included.